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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/529,390

03/28/2005

Michael Porat

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EXAMINER

MATTER, KRISTEN CLARETTE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/529,390	Applicant(s) PORAT, MICHAEL	
	Examiner KRISTEN C. MATTER	Art Unit 3771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6,8-13,15,16,19,20,23 and 27-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,8-13,15,16,19,20,23 and 27-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Action is in response to the amendment filed on 10/19/2010. No claims have been amended, cancelled, or added. Thus, claims 1, 2, 6, 8-13, 15, 16, 19, 20, 23, and 27-33 are currently pending in the instant application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6, 8, 12, 16, 19, 20, 23, 27, 28, 30, and 31 are rejected under 35

U.S.C. 103(a) as obvious over Richardson (US 6,134,716) in view of Lund et al. (US 3,789,839, herein referred to as "Lund").

Regarding claims 1, 12, 16, 20, and 27, Richardson discloses a two part mask assembly that may be supplied in a single pack, and that enables a user to breathe filtered air, the pack consisting essentially of: a first part that is a mask formed as a hood (12) covering the entire head when unfolded consisting essentially of a single bag of transparent film material impermeable to gases (see column 5, lines 35-40), a filter and filter connection assembly (18) connected to the bag and disposed in the wall of the bag (column 3, lines 1-20) opposite the lips of someone wearing the mask (see Figure 1), and exhalation valve (20) disposed in the wall of the bag and worn in the area of a user's nose and/or mouth (see Figure 1), and a second part that is a separate sealing means (60), the bag and the sealing means defining within the bag a single minimum air

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space between the user and the bag wall (see Figure 1; there is no additional structure that would create a separate plenum space).

To the extent, if any, that Richardson does not clearly mention the bag material is impermeable to gases, Examiner points to the fact that the hood has valves and filters and to column 4, lines 48-49, in which Richardson discloses the strap is for preventing contaminated air from entering the interior of the hood. This seems to clearly indicate that the bag is made of an impermeable film material, but regardless, it is obvious to one of skill in the art to make a hood for protecting against air toxins from a material that is impermeable to gases. The flexible nature of the hood and the fact that it is a sheet of plastic material inherently makes the hood flat-foldable to pocket size as is well known in the art for storage.

Richardson lacks the sealing means being a separate circumferential elastic sealing means, not connected to the bag. However, Lund, in a similar protective hood, discloses a separate circumferential elastic sealing and adjusting band comprising an elastic band (11; the tape/band member seals the hood over the "complete periphery" of the neck and is thus circumferential; see column 4, lines 20-30) to seal around the neck and create a single minimum air space between the user and the bag wall. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have replaced the drawstring of Richardson with a separate elastic band as taught by Lund because it would have provided another well known means for creating a good air tight seal around the neck of the user to prevent the ingress of contaminated air. In addition, Richardson discloses that the novel filter, valve, and sealing means can be used "individually" (column 2, lines 40-42) and therefore it appears as though the device of Richardson would perform equally well with the circumferential

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elastic band taught by Lund. Such a modification would appear to involve the mere substitution of one well known sealing means for a protective hood for another to yield predictable results that do not patentably distinguish an invention over the prior art. Since the bands are used on humans, it would be obvious to provide a snug comfortable fit that would not choke someone while still providing a good seal.

Also, to the extent that it is unclear if Lund's sealing band is attached to the hood or not initially since Lund appears to be silent on that issue (although examiner notes that the band is shown on the outside of the hood without being in any sort of attachment means), examiner contends that whether the band is attached to the hood or completely separate is considered an obvious design consideration to one of ordinary skill in the art for allowing precise placement of the band in a comfortable location or to better adjust for different neck sizes. Whether an element is made integral or separate is a design consideration that does not patentably distinguish an invention over the prior art absent a showing of unexpected results.

Regarding claim 6, Richardson discloses a "transparent front panel" worn opposite the eyes, nose, and mouth (column 4, lines 45-50). In addition, examiner notes that what areas of the bag are transparent is considered an obvious design consideration depending on how easily a user wishes to be able to see out of the mask versus how much a user wishes to hide their head for aesthetic or material reasons.

Regarding claim 8, "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even

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though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)(citations omitted). In this case, Richardson discloses the filter member as sealed to the inner surface of the hood (column 3, lines 8-11) but does not specifically state that it is heat sealed (although Richardson does disclose the bag itself is heat-sealed in column 4, line 16). It is well known to persons of ordinary skill in the art to heat seal plastic materials as an effective means for creating air-tight barriers and therefore would have been obvious to one of ordinary skill in the art to heat seal the filter assembly onto the bag for such reasons. Such a modification would involve there mere use of a well known method of sealing in a well known device to yield predictable results that do not patentably distinguish an invention over the prior art.

Regarding claim 19, Richardson as modified by Lund does not disclose 2 elastic bands. However, it is well known to those of ordinary skill in the art that elastic bands are replaceable and therefore it would have been an obvious design consideration to one of ordinary skill in the art at the time the invention was made to have provided a second (i.e., spare) elastic sealing means in the modified mask of Richardson in order to replace the sealing means should it break or need replacement (i.e., due to lack of adhesiveness for the “tape” embodiment), for example (i.e., there is no limitation in the claims that the two sealing means must be used at the same time even, just that two have to exist).

Regarding claim 23, Richardson does not specifically state that the hood is turned inside out after use, however, the flexible nature of the hood material inherently allows the hood to be able to be turned inside out after removal from the head.

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Regarding claim 28, the modified device disclosed by Richardson and Lund has all of the structural limitations needed to perform the recited method steps, including unfolding the hood and stretching an elastic sealing means over the hood and around the neck, and is fully capable of doing so. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, upon seeing the modified Richardson device, to perform the recited method steps of the instant claim 28 in order to don the hood.

Regarding claims 30 and 31, Richardson as modified by Lund is silent as to the claimed dimensions of the folded hood. However, folding hoods for storage is well known in the art and given that the hood of Richardson is for the same purpose of the instant invention (i.e., covering a user's entire head) and made of the same material (i.e., a thin sheet of plastic), it appears as though the device of Richardson would be fully capable of being folded to the claimed size. In addition, absent a critical teaching and/or showing of unexpected results from the claimed folded dimensions, examiner contends that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the modified hood of Richardson foldable to the claimed size to allow the device could be carried in a pocket as is well known in the art. Furthermore, as discussed above, there is nothing structurally that would prevent the device from being folded to the claimed dimensions and it appears as though the device of Richardson would perform equally well if folded to the claimed dimensions for storage.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson and Lund as applied to claims 1, 6, 8, 12, 16, 19, 20, 23, 27, 28, 30, and 31 above, and further in view of McGuinness (H1316). Richardson does not disclose the hood as being made

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of a laminate of more than one plastic material. However, McGuinness discloses a similar protective hood formed from plastic laminates of more than one material (see column 2, lines 43-52). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the hood of Richardson from a plastic laminate as disclosed by McGuinness in order to more effectively protect the user from contaminants for extended periods of time. In addition, it appears as though the device disclosed by Richardson would perform equally well with a hood made of a plastic laminate as opposed to a single layer of plastic film.

Claims 9-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson and Lund as applied to claims 1, 6, 8, 12, 16, 19, 20, 23, 27, 28, 30, and 31 above, and further in view of Wen (US 6,681,765).

Regarding claims 9 and 11, Richardson discloses a multilayer filter with active charcoal but is silent as to an antiseptic. Wen discloses, in a respiration mask, a multilayer filter with charcoal and antiseptic agents including clorohexdine (see column 2, lines 55-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Richardson's filter with an antiseptic agent as taught by Wen in order to more effectively protect the user from viruses and bacteria in the contaminated air. Furthermore, there is nothing structurally preventing such a modification and it appears as though the device disclosed by Richardson would perform equally well with the antiseptic layer.

Regarding claim 10, Wen does not disclose that the charcoal is sandwiched between multiple layers of antiseptic agents. However, absent a critical teaching and/or a showing of unexpected results from having a charcoal layer sandwiched between the antiseptic layers,

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Examiner contends it would have been an obvious design consideration to one of ordinary skill in the art at the time the invention was made to have used two antiseptic layers surrounding a charcoal layer in the multilayer filter disclosed by the modified Richardson reference in order to use multiple antiseptic agents for example or for more effective protection against viruses and bacteria. Furthermore, there is nothing structurally preventing such a modification and it appears as though the device disclosed by Richardson and Wen would perform equally well with the antiseptic layers sandwiching the charcoal layer.

Regarding claim 13, Richardson does not disclose the particle sizes filtered by the filter. However, the limitation "greater than 2 microns" includes macroparticles that would inherently be filtered out by the filter of Richardson (i.e., large dust). In any case, Wen discloses that the filter filters out particles in excess of 0.3 microns (column 5, line 60), which overlaps the claimed range of greater than 2 microns. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have designed the filter of Richardson to filter out particles greater than 2 microns in order to prevent contaminants from being breathed in by the user.

Claims 15 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson and Lund as applied to claims 1, 6, 8, 12, 16, 19, 20, 23, 27, 28, 30, and 31 above, and further in view of Courtney (US 4,981,134). Richardson does not disclose the valve as being embedded in the filter. However, Courtney discloses a filter assembly for a face mask that includes an exhalation valve (7) embedded in the filter assembly (see Figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to

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have used a filter assembly as taught by Courtney in the mask of Richardson in order to allow the valve and filter to both be easily replaced as needed. Furthermore, there is nothing structurally preventing such a modification and it appears as though the device disclosed by Richardson and Wen would perform equally well with the valve embedded in the filter.

Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson and Lund as applied to claims 1, 6, 8, 12, 16, 19, 20, 23, 27, 28, 30, and 31 above, and further in view of Nur et al. (US 5,875,775, herein referred to as “Nur”).

Regarding claim 32, Richardson as modified by Lund teaches the structural limitations of claim 32 as discussed above for claim 1 but does not specifically mention a pouch. However, Nur teaches, in a similar protective hood, that the hood/filter/valve arrangement allows the device to be folded into small individual packages of 8 x 12 cm and stored in hermetically sealed pouches for carrying in a shirt pocket or handbag (column 6, lines 1-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the Richardson's modified device with a pouch as taught by Nur in order to allow the device to be stored longer, to prevent dirt buildup while on the shelf, or to keep all the components together for easy access.

Regarding claim 33, the modified Richardson device does not specifically disclose that the pouch is sealed under vacuum. However, absent a critical teaching and/or showing of unexpected results from sealing the modified Richardson hood under vacuum, examiner contends that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have hermetically sealed the pouch under vacuum since vacuum packing

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is a well known and commonly used technique to store goods in plastic to prolong shelf life and minimize space.

Response to Arguments

Applicant's arguments filed 10/19/2010 have been fully considered but they are not persuasive.

In response to applicant's argument that Richardson teaches away from the invention by discloses a stretchable strap 64 and a drawstring 60, examiner respectfully disagrees. As discussed in the above rejection, Richardson discloses that the novel filter, valve, and sealing means can be used "individually" (column 2, lines 40-42) and in column 2, lines 60-65 describes the invention being essentially the filter. Thus, it is clear that the sealing means is not a critical feature of Richardson's device and any well known sealing means that prevents the ingress of contaminated air into the hood will work equally well with the device. Just because Richardson discloses a preferable sealing means different from that of the instant invention does not mean that Richardson teaches away from any other sealing means.

In response to applicant's arguments that Lund does not disclose a two part assembly because he discloses a net (10), examiner points out that Richardson has no net and is able to work properly (as does the balance of other cited prior art since Lund is the only cited reference that discusses an additional shroud to press the hood against the face). Contrary to applicant's statement on page 3, Lund gives no indication that the net "must be used in combination with an elastic band 11 to secure the hood to the head." Using the elastic band sealing means of Lund in place of the drawstring of Richardson is simply replacing one well known sealing means with

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another to yield predictable results that do not patentably distinguish an invention over the prior art. In fact, the combination results in the exact same structure as the instant invention and thus, if Richardson's device would not be able to be sealed with just the elastic band of Lund then the instant invention would be inoperable for the same reasons. However, examiner believes such a seal is sufficient in Richardson and that the combination would secure the hood to the head in the same manner as the instant invention since the structure is identical.

In response to applicant's arguments that the seal of Lund is part of the hood, examiner notes that this was addressed in the rejection. Lund gives no indication that the seal is part of the hood because Lund shows no connection means nor describes such in the specification. Band 11 is simply described as an elastic tape or band that presses the hood against the neck (column 4, lines 25-29) and is clearly shown as lying on the outside of the hood and shroud in Figure 11, supporting examiner's position. Furthermore, applicant's assertion that having an adjustable separate sealing means not attached to the hood is a novel discovery of the instant inventor is simply false. See, for example, previously cited reference US 4,807,614 which teaches a sealing means that is completely separate from the hood and provides a mask having a completely adjustable sealing means. Therefore, applicant's assertion that having a separate sealing means produces unexpected results is not convincing.

Examiner also disagrees with applicant's position that if having a separate sealing means were an obvious design consideration that "all prior art references" would have separate sealing means. Other references likely recognize that having a separate sealing means could lead to a user accidentally losing the sealing means, making the entire protective hood inoperable (i.e., because there would be no seal and contaminated gas would reach the user's lungs). Having the

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sealing means be separable or attached with the hood is simply a design consideration weighing between the advantages of being able to have more control over positioning the sealing means and minimizing the risk of losing the sealing means, rendering the entire device inoperable. In addition, use of the term "preferably" in Richardson when describing the drawstring being "through a channel" in column 4, lines 33-35, further supports examiner's position that having a separate sealing means in Richardson would allow the device to work equally well.

Accordingly, the proposed modification involves a simple substitution of one well known sealing means for another to yield predictable results that do not patentably distinguish the invention over the prior art and the mechanics of making the proposed change would be well within the knowledge of one of ordinary skill in the art.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to KRISTEN C. MATTER whose telephone number is (571)272-5270. The examiner can normally be reached on Monday - Friday 9-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kristen C. Matter/
Examiner, Art Unit 3771

/Justine R Yu/

Supervisory Patent Examiner, Art Unit 3771